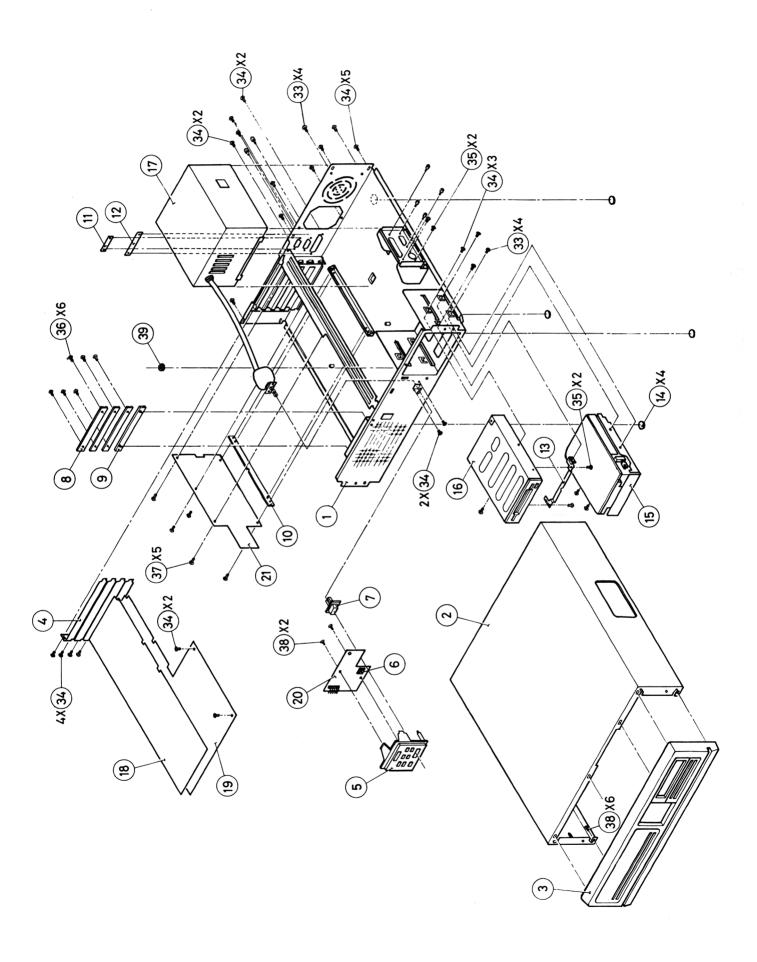
# **Kundendienst-Handbuch Service Manual**

# PERSONAL COMPUTER PC 2640

Ident-Nr.: 36523

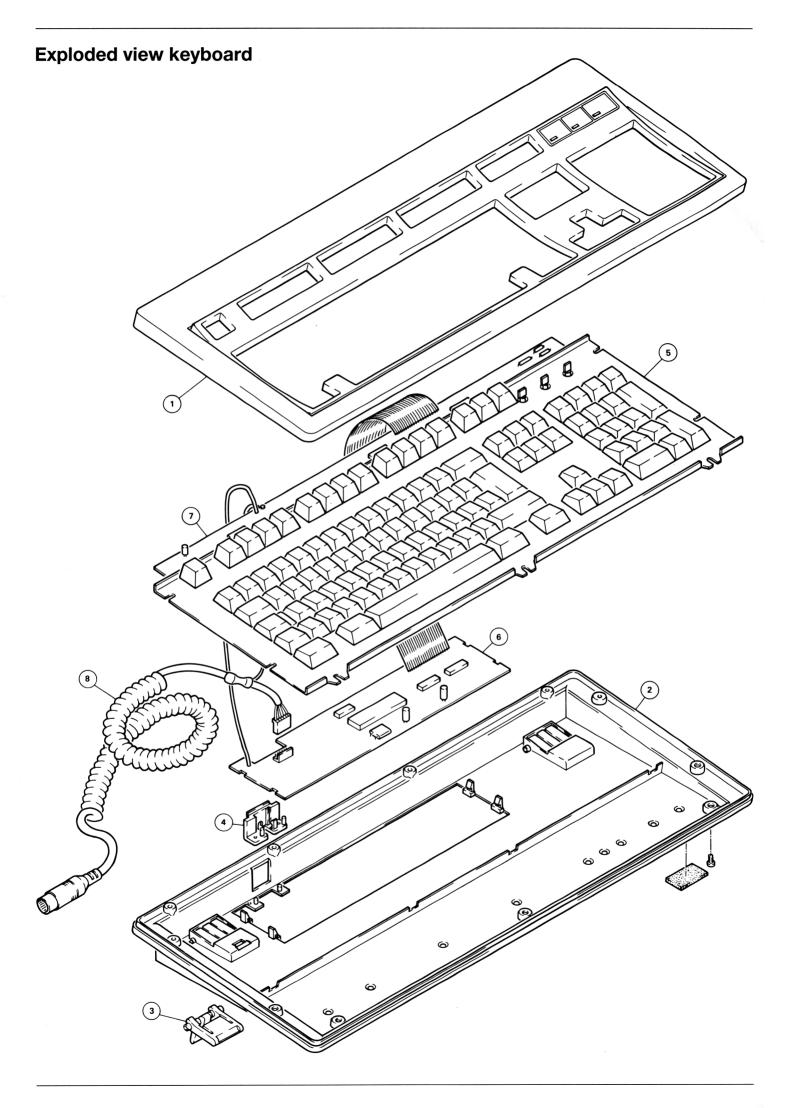


# **Exploded view**

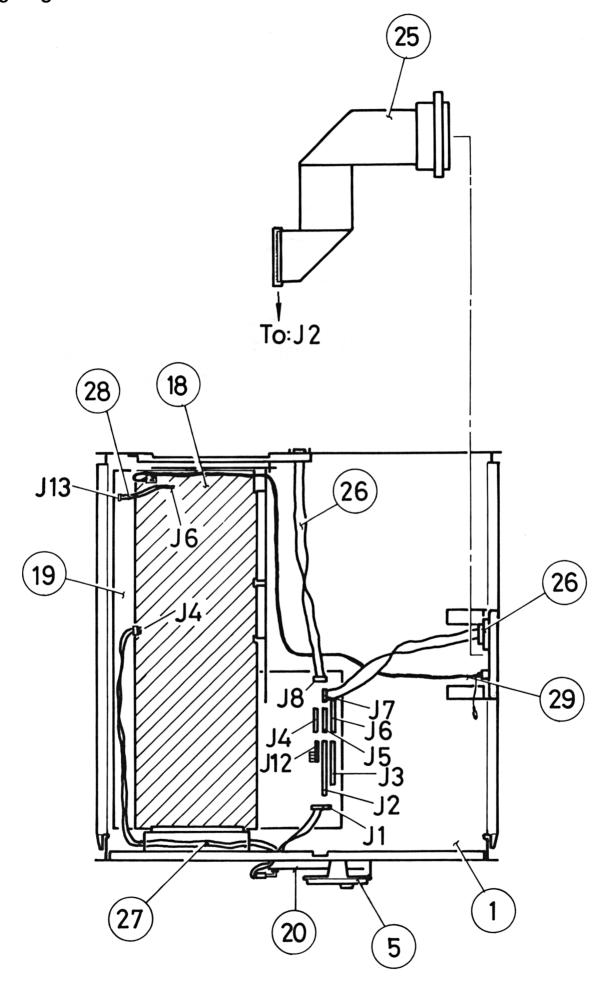


#### Ersatzteilliste für PC 2640 Parts List for Model PC 2640

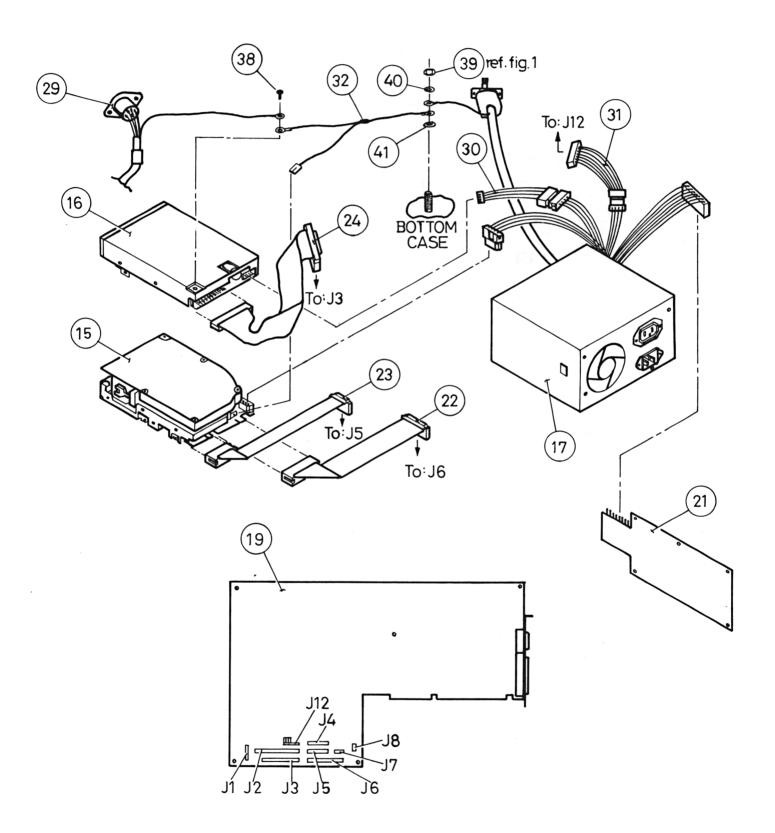
BestNr. PartNo.	Bezeichnung	Description	Zeichen-Pos. RefNo.	Preisgruppe
40 894 00	Gehäuse Boden	Bottom case	1	E 5
40 895 00	Gehäuse Oberteil	Top case	2	E 0
40 896 00	Frontrahmen	PC 2640 Front panel	3	B 7
40 897 00	Abdeckung LED	LED cover	5	B 1
40 898 00	Knopf Reset	Reset knob	6	A 5
40 899 00	Knopf Netzschalter	Power knob	7	A 5
40 900 00	Halter FDD	FDD bracket	13	A 7
40 888 00	Keyboard kompl.	Keyboard assembly	_	F 6
40 873 00	Maus	Mouse		E 2
40 901 00	Styropor Systemeinheit, Satz	Polyfoam system unit, set	_	D 1
40 902 00	Faltkarton Systemeinheit	Gift box system unit	_	B 7
40 903 00	Styropor Keyboard, Satz	Polyfoam keyboard, set	_	B 7
40 904 00	Faltkarton Keyboard	Gift box keyboard	_	B 2
40 905 00	Faltkarton Keyboard kompl.	Gift box keyboard cpl.	_	B 3
44 013 00	Netzkabel	Cord AC	_	C 5
44 014 00	Kabel HDD	Cable HDD	22	B 5
44 015 00	Kabel HDD	Cable HDD	23	B 2
44 016 00	Kabel FDD	Cable FDD	24	B 4
44 017 00	Kabel FDD	Cable FDD	25	C 7
44 018 00	Kabel Leiste	Cable male	26	B 5
44 019 00	Kabel LED	Wire LED	27	B 5
44 020 00	Kabel Display	Wire display	28	A 5
44 021 00	Kabel Buchse	Cable D-jack	29	B 1
44 022 00	Kabel FDD	Wire power FDD	30	B 0
44 023 00	Kabel FDD	Wire power FDD	31	B 2



# Wiring diagram



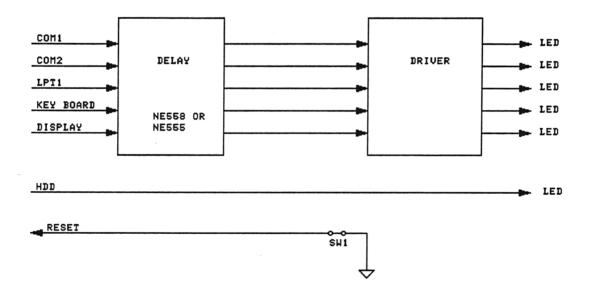
# Wiring diagram



#### Ersatzteilliste für PC 2640 Parts List for PC 2640

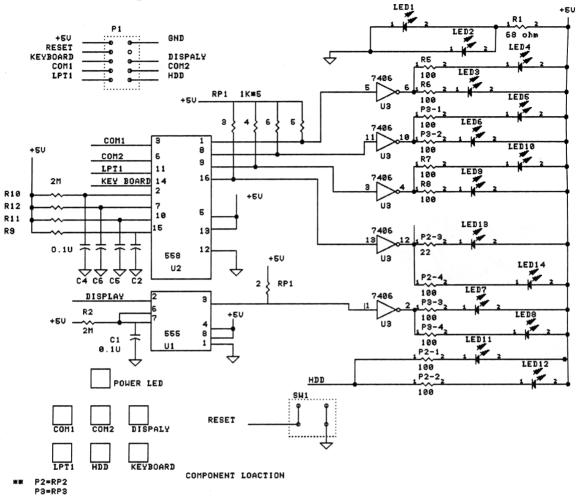
BestNr. PartNo.	Bezeichnung	Description	Zeichen-Pos. RefNo.	Preisgruppe
40 980 00	Platine LED	LED board	-	C 5
IC				
IC				
24 185 00	IC NE 555 P	IC NE 555 P	U 1	B 4
40 981 00	IC NE 558 N	IC NE 558 N	U 2	A 7
15 241 00	IC 7406	IC 7406	U 3	A 7
Verschied	enes/Miscellaneous			
40 992 00	Widerstand/Netzwerk	Resistor, Network	RP 1	A 3
40 997 00	Widerstand/Netzwerk	Resistor, Network	RP 2, 3	A 3

# Block Diagram LED board

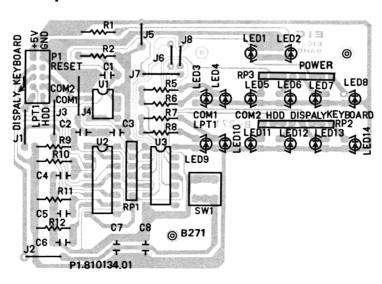


#### **LED Board**

### **Schematic diagram**



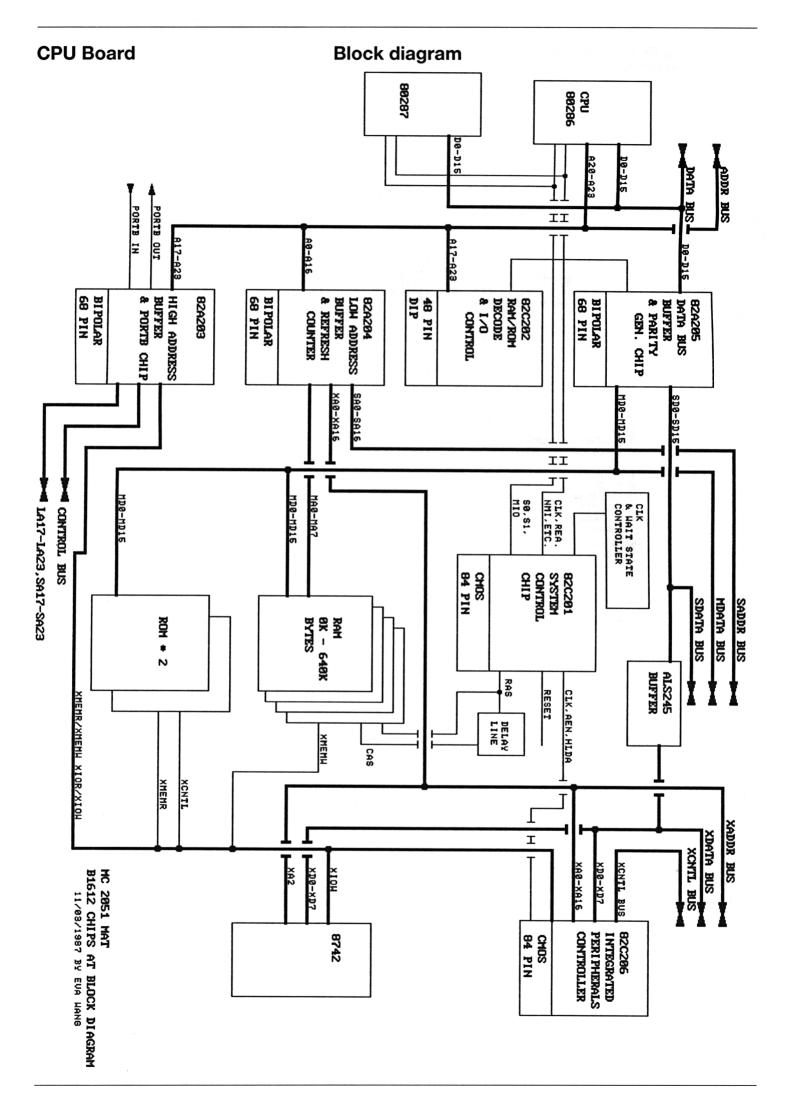
#### **Component side**



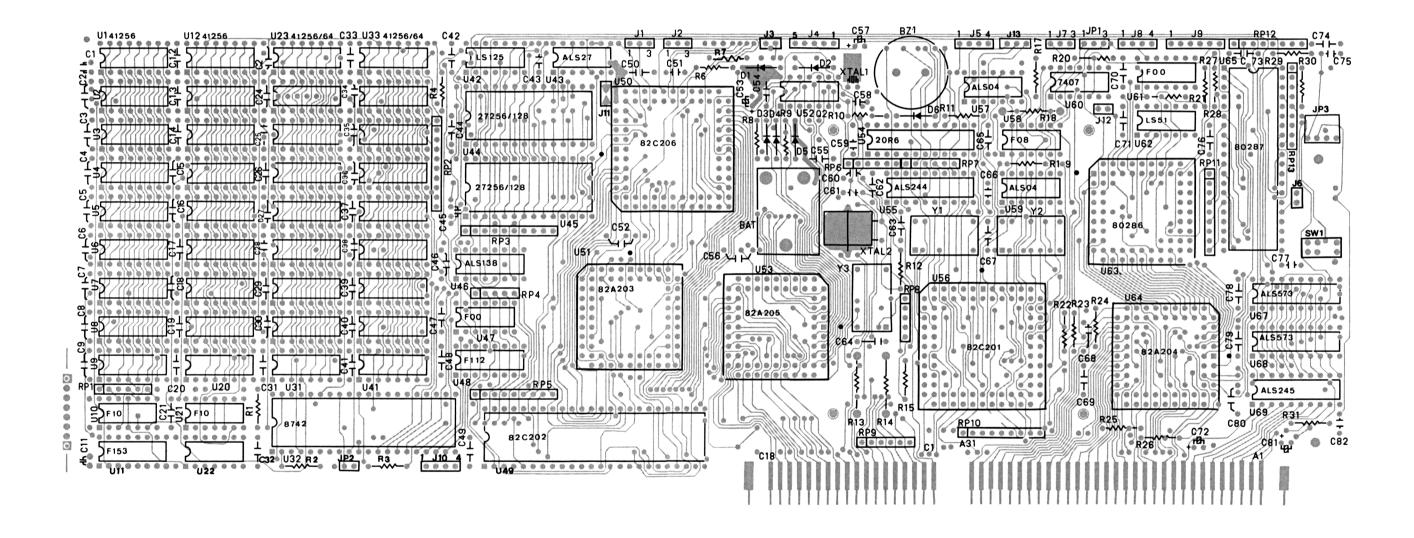
#### Ersatzteilliste für PC 2640 CPU Parts List for PC 2640 CPU

BestNr. PartNo.	Bezeichnung	Description	Zeichen-Pos. RefNo.	Preisgruppe
906 00	Platine CPU	CPU board	-	*
3				
907 00	IC 41256-12	IC 41256-12	U 1-9	C 8
908 00	IC 74 LS 10	IC 74 LS 10	U 10	A 4
909 00	IC 74 F 153	IC 74 F 153	Ŭ 11	A 8
910 00	IC 41256-12	IC 41256-12	U 12-20	C 8
908 00 912 00	IC 74 LS 10 IC 4164-12	IC 74 LS 10 IC 4164-12	U 21 U 23-31	A 4 C 2
913 00	IC 80C42C	IC 80C42C	U 32	C 7
912 00	IC 4164-12	IC 4164-12	U 33-41	C 2
1 767 00 2 015 00	IC 74LS125	IC 74LS125	U 42	A 5
0 915 00 0 916 00	IC 74ALS27 IC 27128-15	IC 74ALS27 IC 27128-15	U 43 U 44	A 5 D 0
1 229 00	IC 27128-15	IC 27128-15	U 45	D 0
0 917 00	IC 74ALS138	IC 74ALS138	U 46	A 8
0 918 00 0 919 00	IC 74F00 IC 74S112	IC 74F00 IC 74S112	U 47 U 48	A 5
0 920 00	IC 745112 IC 82C202	IC 745112 IC 82C202	U 49	A 6 E 1
0 921 00	IC 82C206	IC 82C206	U 50	E 1
0 922 00	IC 82A203,12	IC 82A203,12	U 51	E 1
4 184 00 0 923 00	IC 14069 IC 82A205.12	IC 14069 IC 82A205.12	U 52 U 53	B 4 E 1
924 00	IC PAL20R6ANC	IC PAL20R6ANC	U 54	C 4
925 00	IC 74ALS244	IC 74ALS244	U 55	B 2
) 926 00 ) 927 00	IC 82C201 IC 74ALS04	IC 82C201 IC 74ALS04	U 56 U 57	E 1 A 5
928 00	IC 74F08	IC 74ALS04	U 58	A 5
0 927 00	IC 74ALS04	IC 74ALS04	U 59	A 5
0 930 00	IC 7407	IC 7407	U 60	A 5
0 918 00 0 932 00	IC 74F00 IC 74LS51	IC 74F00 IC 74LS51	U 61 U 62	A 5 A 3
933 00	IC 80286-12	IC 80286-12	U 63	G 7
0 934 00	IC 82A204	IC 82A204	U 64	E 1
935 00 936 00	IC 74ALS573 IC 74ALS245	IC 74ALS573 IC 74ALS245	U 67, 68 U 69	B 4 B 2
/erschiede	nes/Miscellaneous			
987 00	Widerstand/Netzwerk	Resistor, Network	RP 1	A 3
0 988 00 0 989 00	Widerstand/Netzwerk Widerstand/Netzwerk	Resistor, Network Resistor, Network	RP 2, 3 RP 4	A 3 A 3
0 990 00	Widerstand/Netzwerk Widerstand/Netzwerk	Resistor, Network Resistor, Network	RP 5	A 3
987 00	Widerstand/Netzwerk	Resistor, Network	RP 6, 7	A 3
991 00	Widerstand/Netzwerk	Resistor, Network	RP 8	A 3
) 992 00 ) 990 00	Widerstand/Netzwerk Widerstand/Netzwerk	Resistor, Network Resistor, Network	RP 9 RP 10, 11	A 3 A 3
993 00	Widerstand/Netzwerk	Resistor, Network	RP 12	A 3
990 00	Widerstand/Netzwerk	Resistor, Network	RP 13	A 3
998 00 999 00	Oszillator 12 MHz Oszillator 25 MHz	Osc. 12 MHz Osc. 25 MHz	Y 1 Y 2	B 5 B 5
1 000 00	Oszillator 20 MHz	Osc. 20 MHz	Y 3	B 5
1 001 00	Quarz 32,768 kHz	X Tal 32.768 kHz	X Tal 1	B 5
4 002 00	Quarz 14,318 kHz	X Tal 14.318 kHz	X Tal 2	B 5
4 009 00 4 010 00	Verzögerungsleitung Filter	Delay line EMI Absorber	U 22 R 13, 14, 18	B 5 B 1
4 025 00	Batterie 3,6 V	Battery 3.6 V	BAT	B 9
026 00	Piepser	Buzzer	BZ 1	B 3
4 027 00	DIP-SW 2fach	DIP-SW 2 pos.	SW 1	B 2

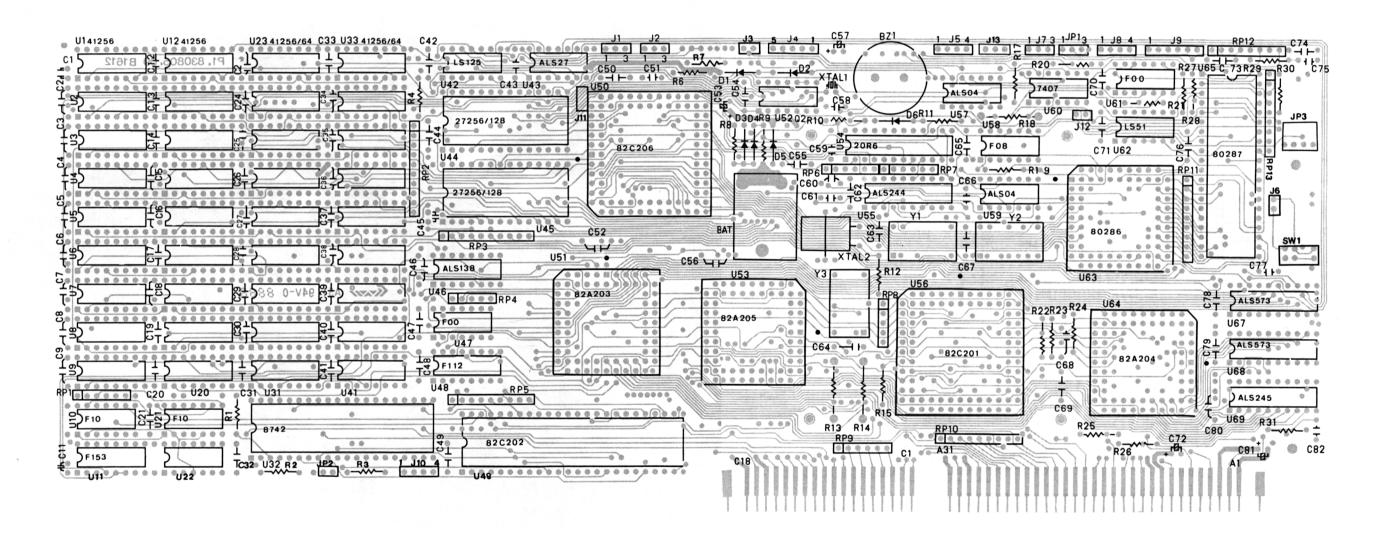
<sup>\*</sup> Preis auf Anfrage



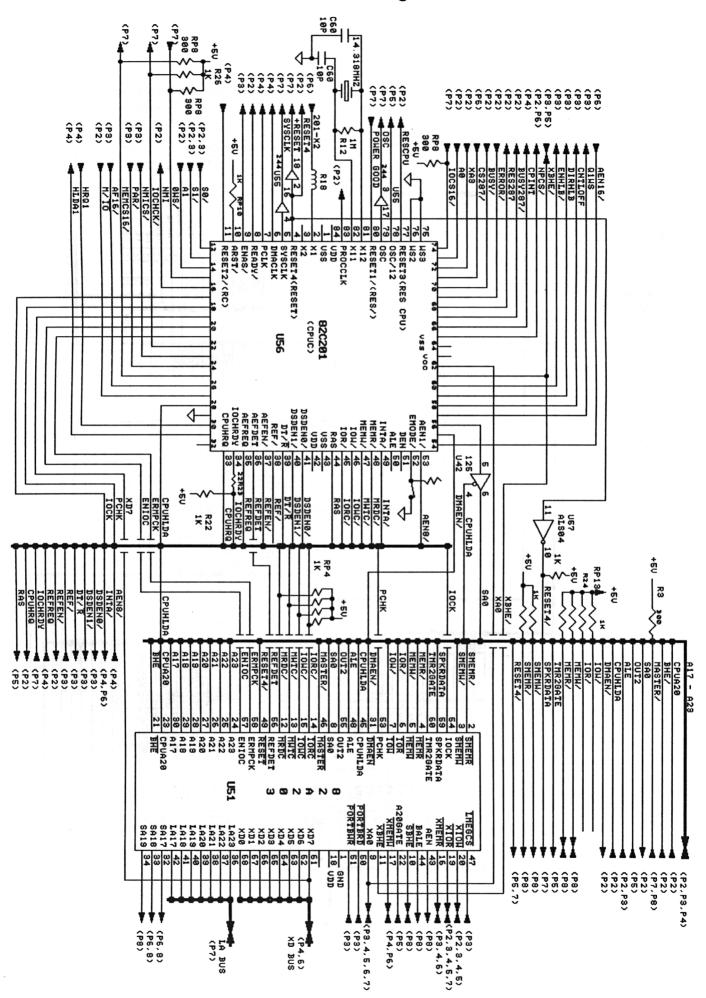
# **Component side**



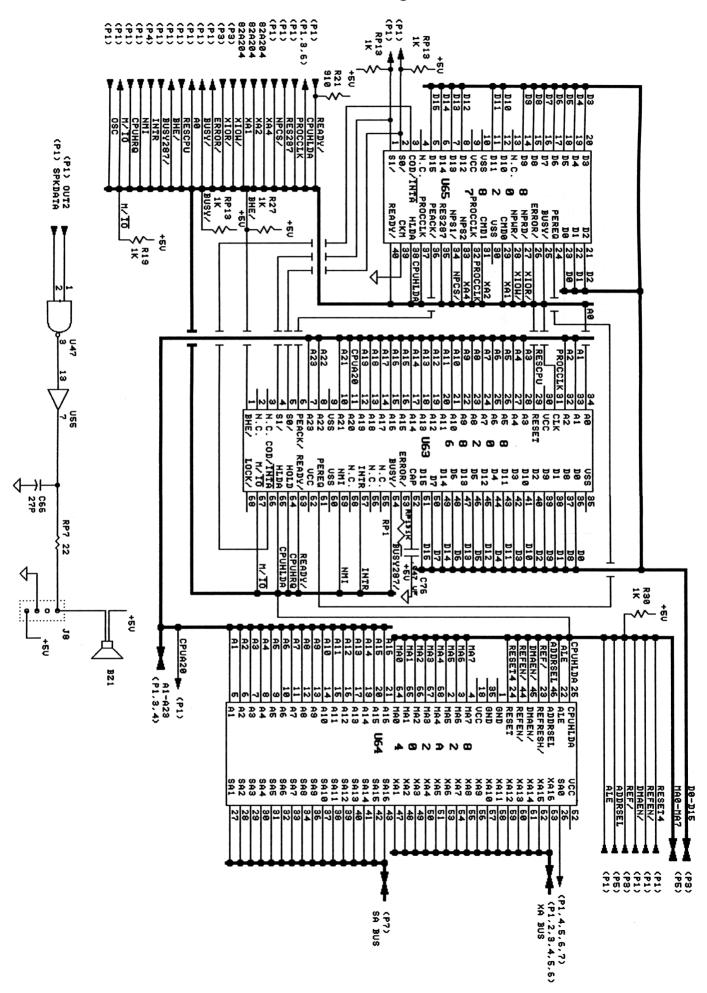
# Soldering side

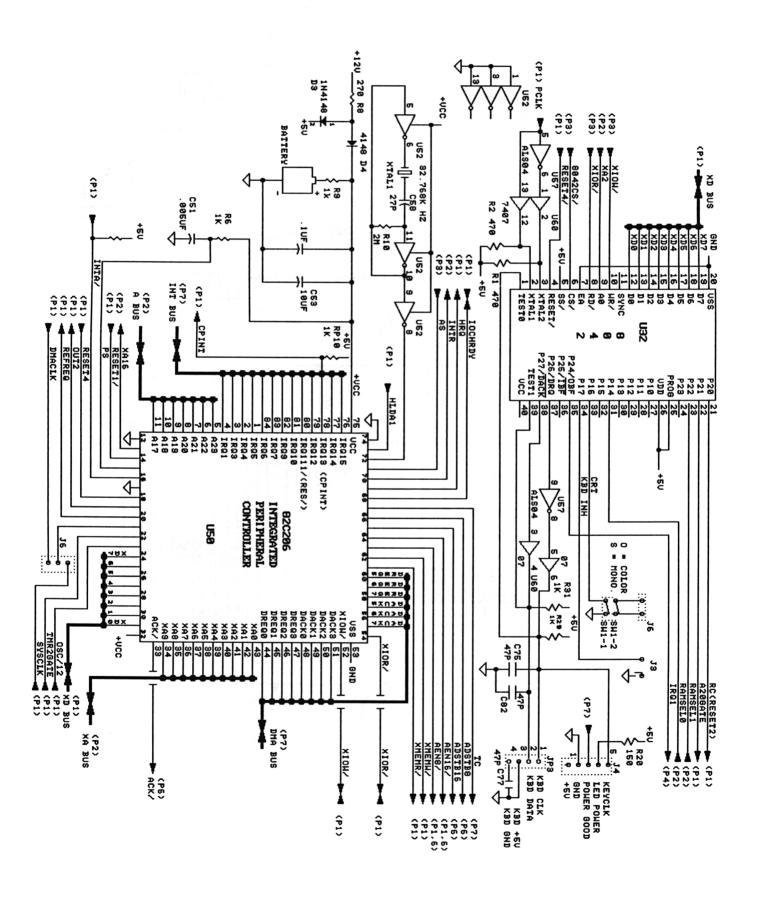


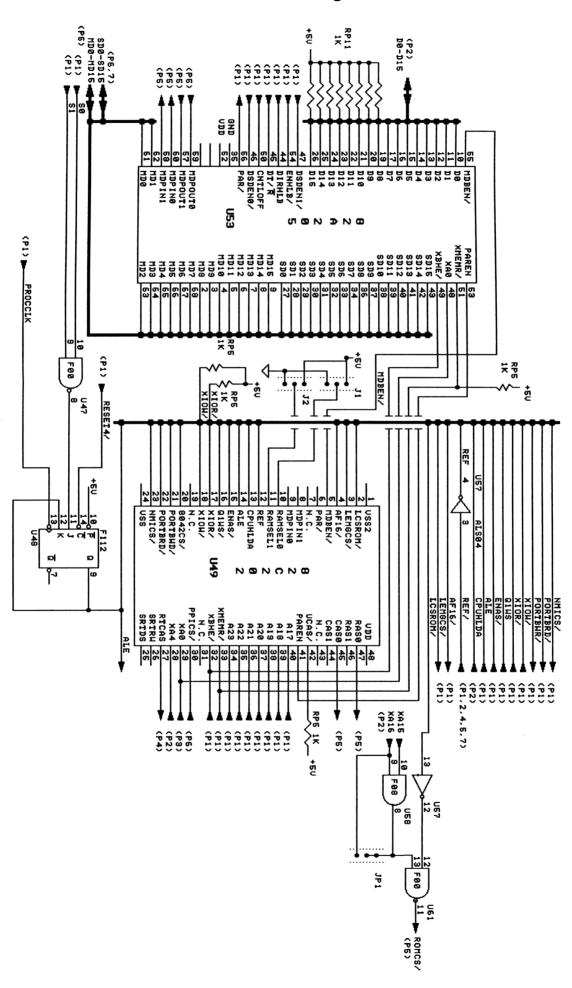
#### **CPU Board**



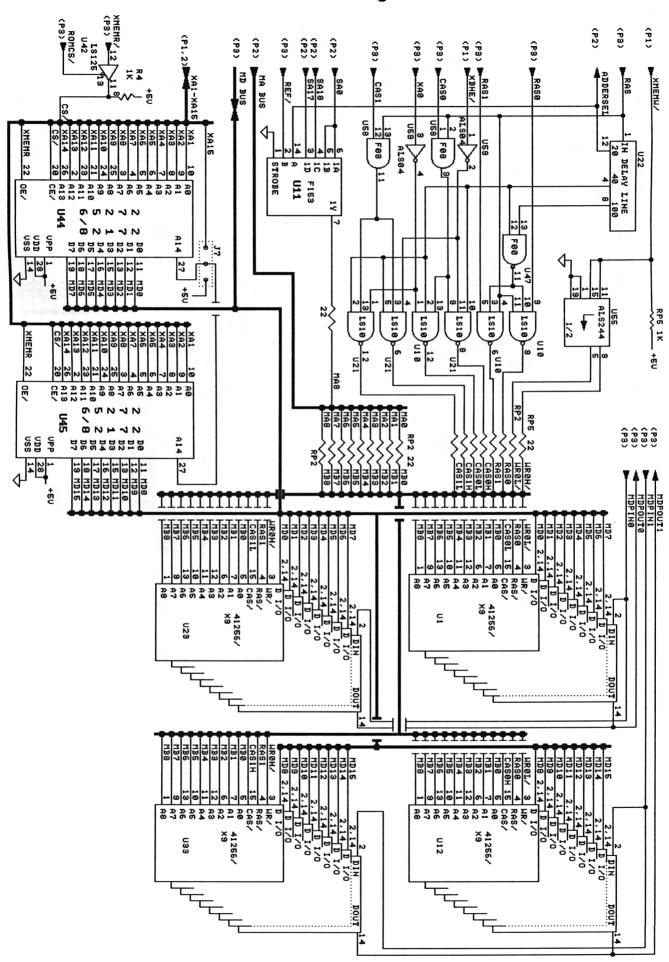
#### **CPU Board**

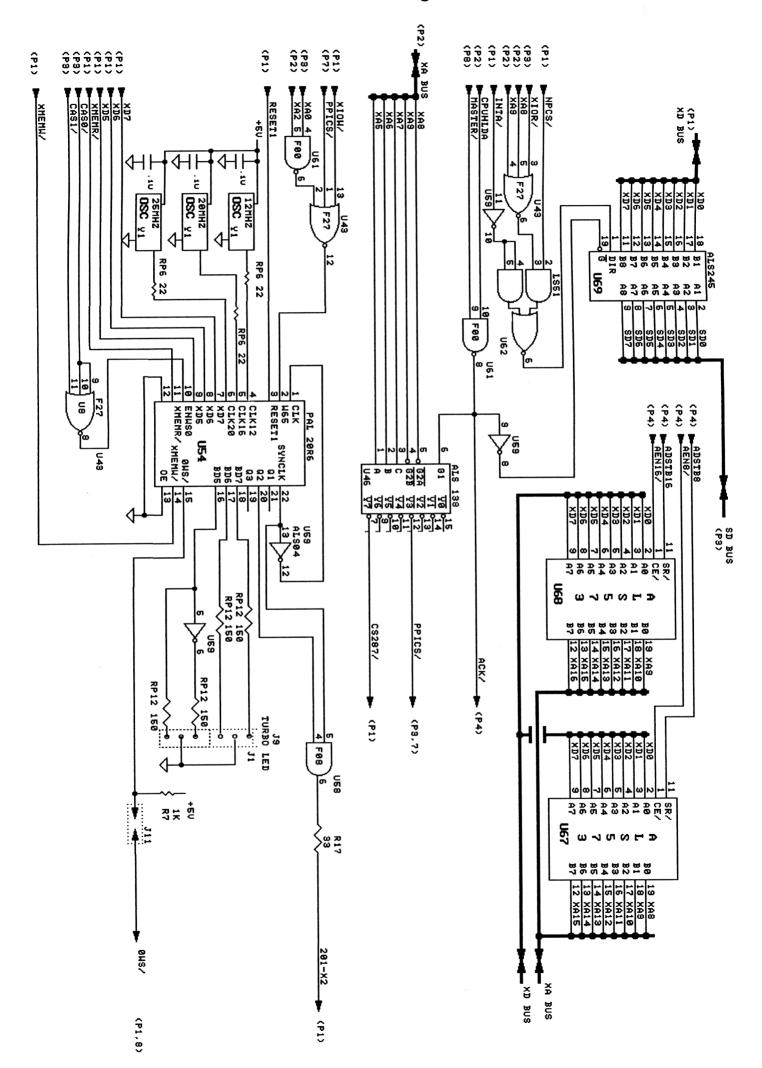


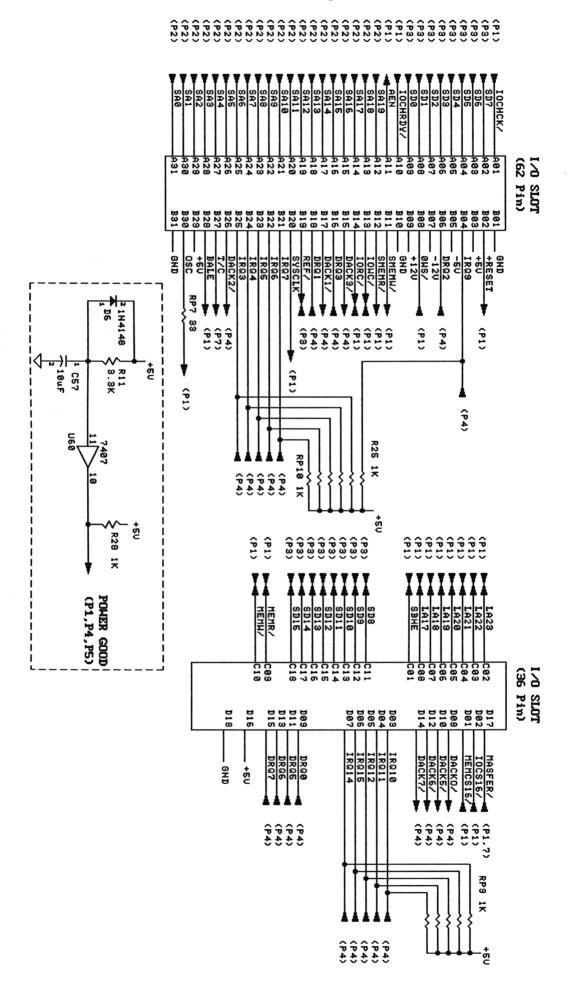




# **CPU Board**



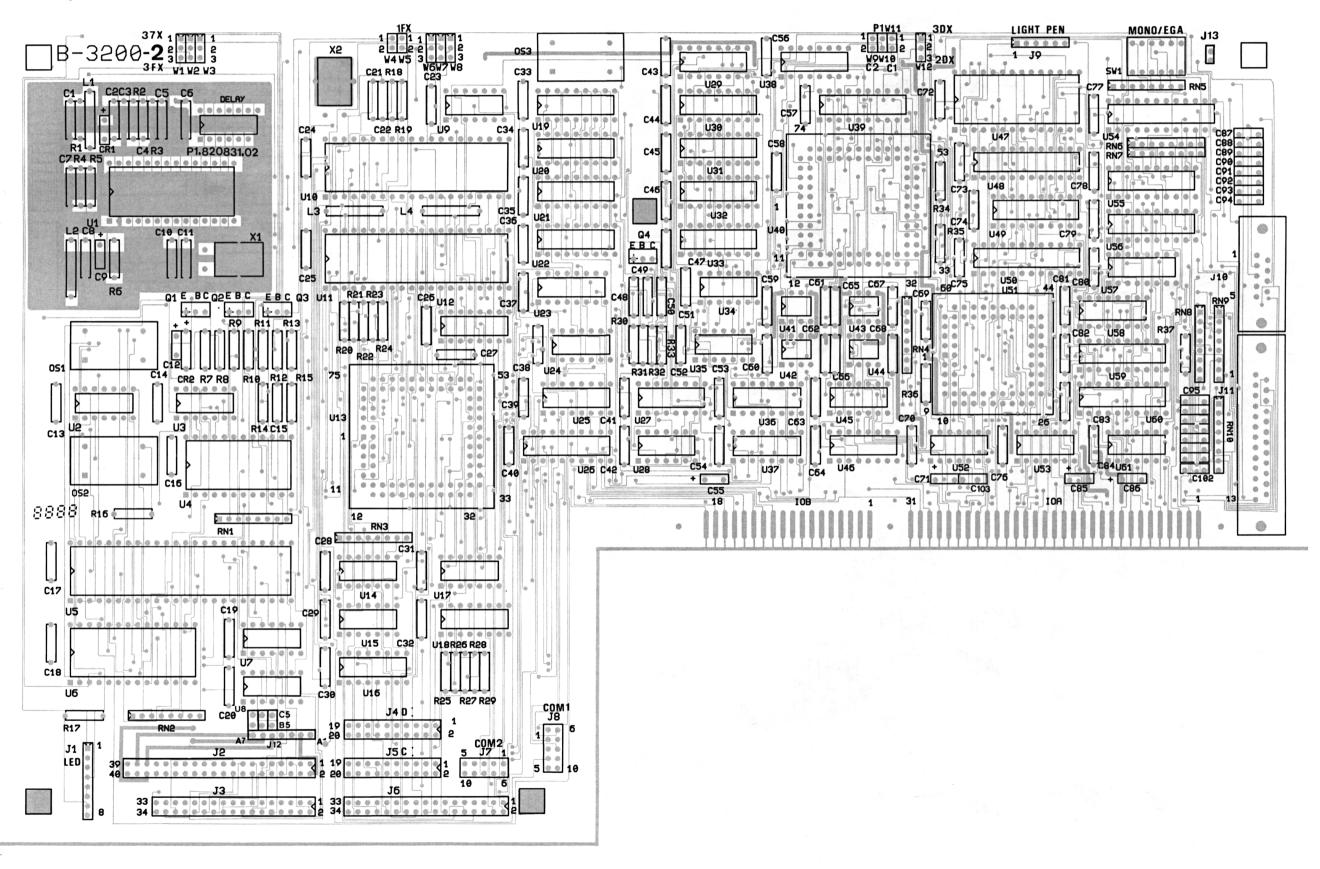




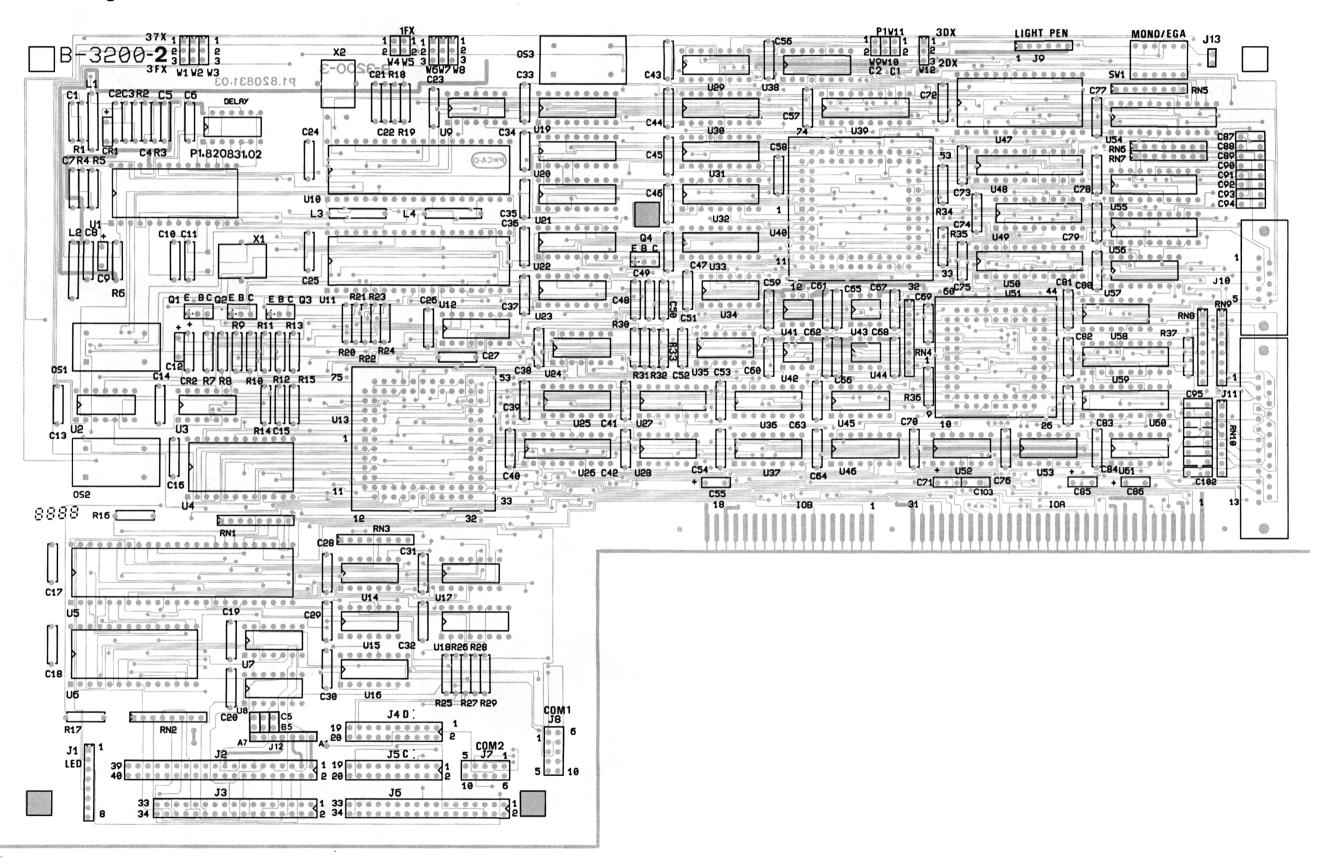
# Ersatzteilliste für PC 2640 Multi I/O Parts List for PC 2640 Multi I/O

0 937 00			RefNo.	Preisgruppe
^	Platine Multi I/O	Multi I/O Board	-	J 9
C				
0 938 00	IC WD10C21A-PH	IC WD10C21A-PH	U 1	E 2
0 940 00 5 241 00	IC 74LS30 IC 7406	IC 74LS30 IC 7406	U 2 U 3	A 5
0 941 00	IC 7406 IC RAM 2016	IC 7406 IC RAM 2016	U 4	A 7 B 8
0 942 00	IC UM 8398	IC UM 8398	Ü5	D 8
0 943 00	IC 2764	IC 2764	U 6	C3
5 241 00 9 231 00	IC 7406 IC 74LS74	IC 7406 IC 74LS74	U 7, 8 U 9	A 7 B 1
0 944 00	IC WD1015C-PL	IC WD1015C-PL	Ŭ 10	E 2
0 955 00	IC WD5011-PL	IC WD5011-PL	U 11	E2
0 956 00	IC 74LS173	IC 74LS173	U 12	A 7
0 957 00 2 167 00	IC WD11C00C JU IC 74LS14	IC WD11C00C JU IC 74LS14	U 13 U 14	E 2 A 6
9 224 00	IC 74LS08	IC 74LS08	U 15	A 9
0 958 00	IC 3487	IC 3487	U 16	B 2
5 241 00 0 959 00	IC 7406 IC 3486	IC 7406 IC 3486	U 17 U 18	A 7 B 2
0 960 00	IC 4464-12 RAM	IC 4464-12 RAM	U 19-22	C 8
0 961 00	IC 74LS123	IC 74LS123	U 23	A 5
4 767 00	IC 74LS125	IC 74LS125	U 24	A 7
0 961 00 0 963 00	IC 74LS123 IC 74F245	IC 74LS123 IC 74F245	U 25 U 26	A 5 A 7
2 172 00	IC 74LS139	IC 74LS139	U 27	A 6
0 964 00	IC 74S32	IC 74S32	U 28	A 5
347 00	IC 74LS153	IC 74LS153	U 29	B 2
0 965 00 9 294 00	IC 4464-12 RAM IC 74LS04	IC 4464-12 RAM IC 74LS04	U 30-33 U 34	C 8 A 9
6 121 00	IC 74LS00	IC 74LS00	U 35	A 5
966 00	IC 75154	IC 75154	U 36, 37	B 2
4 768 00 6 354 00	IC 74LS174 IC 74LS244	IC 74LS174 IC 74LS244	U 38 U 39	A 7 B 0
0 087 00	IC PEGA1A	IC PEGA1A	U 40	F 4
967 00	IC 75150	IC 75150	U 41-44	B 1
0 117 00	IC 74LS20	IC 74LS20	U 45	A 5
) 968 00 ) 969 00	IC 75154 IC ROM27128-15	IC 75154 IC ROM27128-15	U 46 U 47	B 2 D 0
970 00	IC PAL 20L8ANC	IC PAL 20L8ANC	U 48	C 5
354 00	IC 74LS244	IC 74LS244	U 49	B 9
) 971 00 ) 972 00	IC PAL 20L8ANC IC 83747	IC PAL 20L8ANC IC 83747	U 50 U 51	C 5 E 3
973 00	IC 74F20	IC 63747	U 52	A 5
974 00	IC 74LS28	IC 74LS28	U 53	A 5
975 00	IC 2015.15 RAM	IC 2015.15 RAM	U 54	B 5
) 976 00 1 772 00	IC PAL 16L8ANC IC 74LS245	IC PAL 16L8ANC IC 74LS245	U 55 U 56	B 7 B 0
977 00	IC 74LS257	IC 74LS257	U 57	A 5
2 095 00	IC 74LS138	IC 74LS138	U 58	A 6
) 978 00 1 772 00	IC 74LS374 IC 74LS245	IC 74LS374 IC 74LS245	U 59 U 60	A 8 B 0
940 00	IC 74LS30	IC 74LS30	U 61	A 5
erschiede	nes/Miscellaneous			
994 00	Widerstand/Netzwerk	Resistor, Network	RN 1, 4, 5, 10	A 3
995 00	Widerstand/Netzwerk	Resistor, Network	RN 2, 3	A 3
) 996 00 I 003 00	Widerstand/Netzwerk Oszillator 24 MHz	Resistor, Network Osc. 24 MHz	RN 6-9 OS 1	A 3 B 5
004 00	Oszillator 1,8432 MHz	Osc. 1.8432 MHz	OS 2	B 5
005 00	Oszillator 16,257 MHz	Osc. 16.257 MHz	OS 3	B 5
1 006 00	Quarz 15 MHz	X Tal 15 MHz	X 1	B 5
l 007 00 l 012 00	Quarz 10 MHz Verzögerungsleitung	X Tal 10 MHz Delay line	X 2 Delay	B 5 B 9
805 00	Buchse 25pol.	Socket 25-pol.		CO
806 00	Buchse 9pol.	Socket 9-pol.	_ CW 4	B 7
1 027 00	DIP-SW 6fach	DIP-SW 6 Pos.	SW 1	B 2

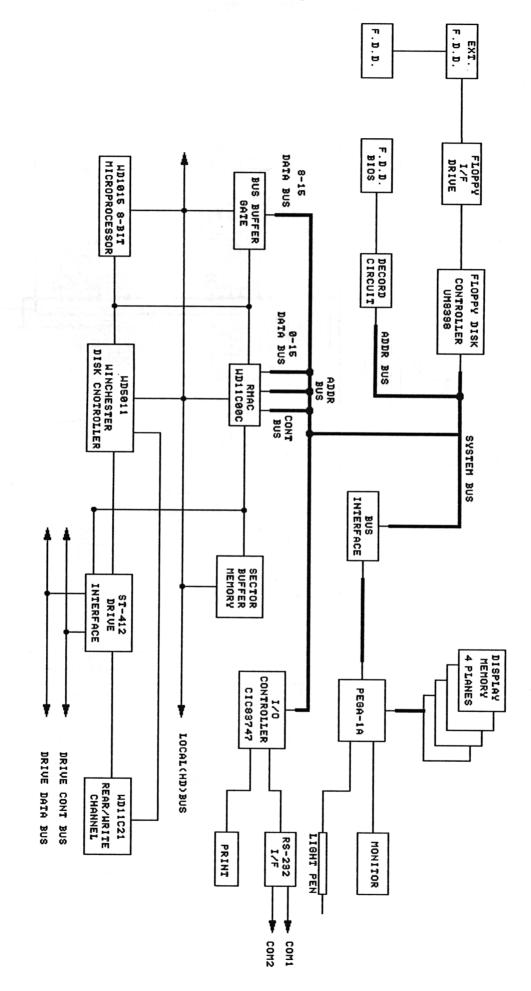
# **Component side**



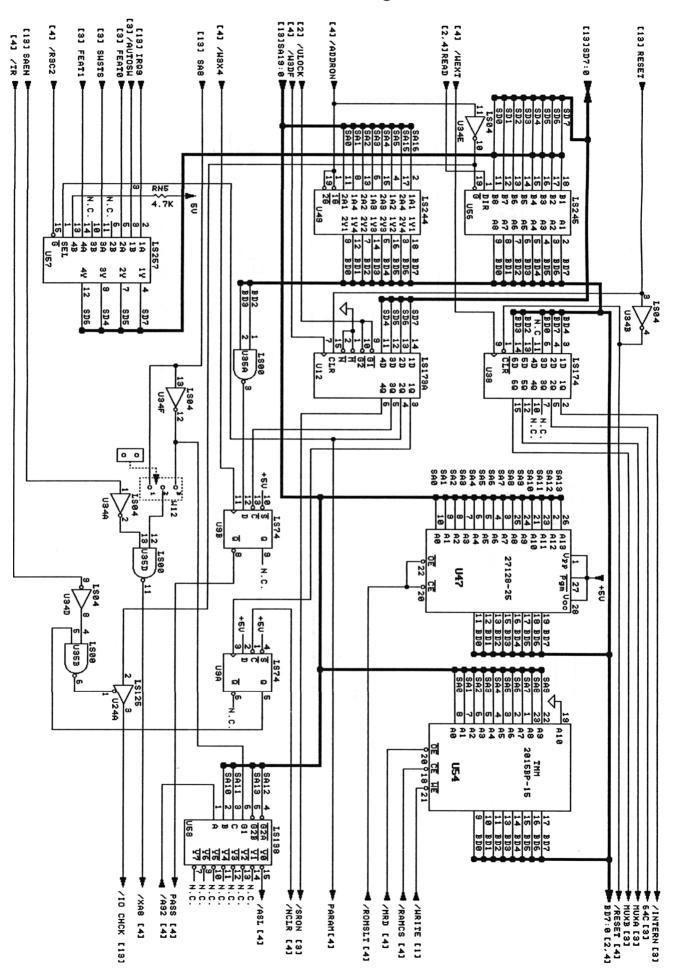
#### Soldering side

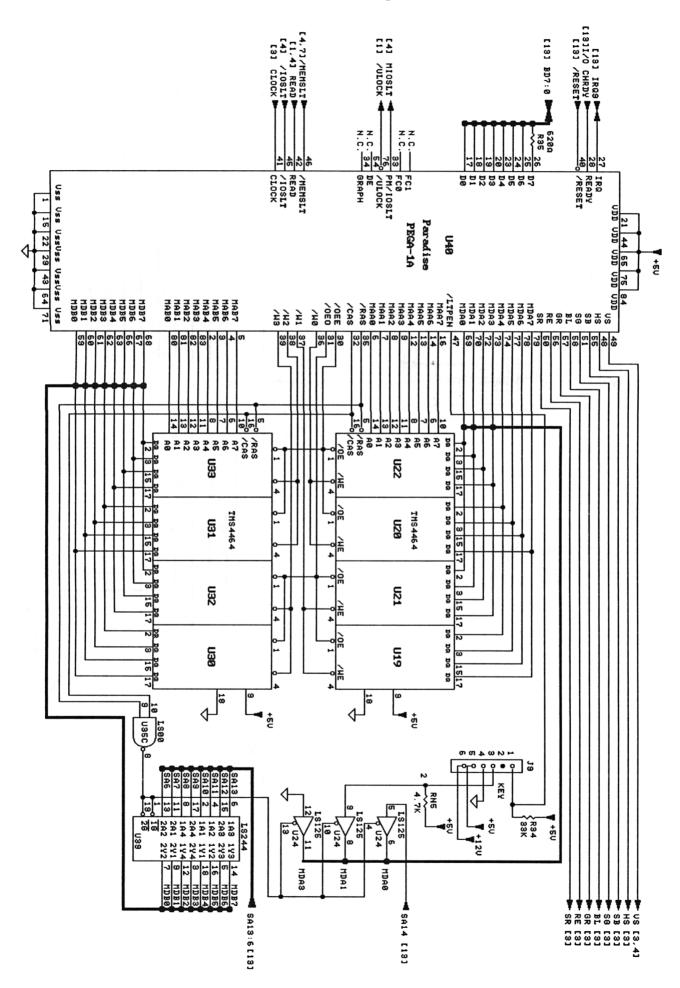


# **Block diagram**

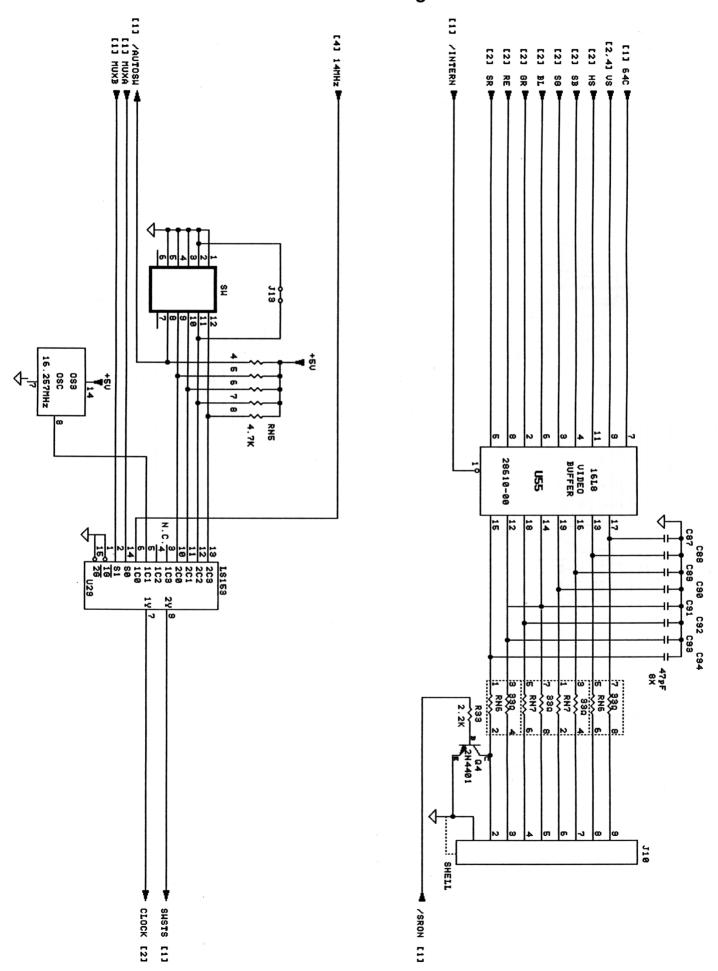


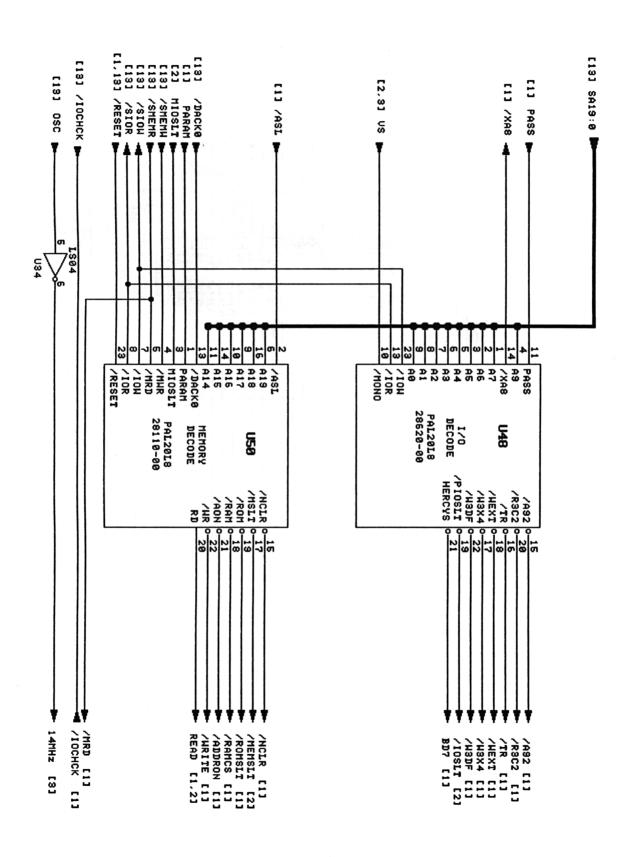
#### Multi I/O Board



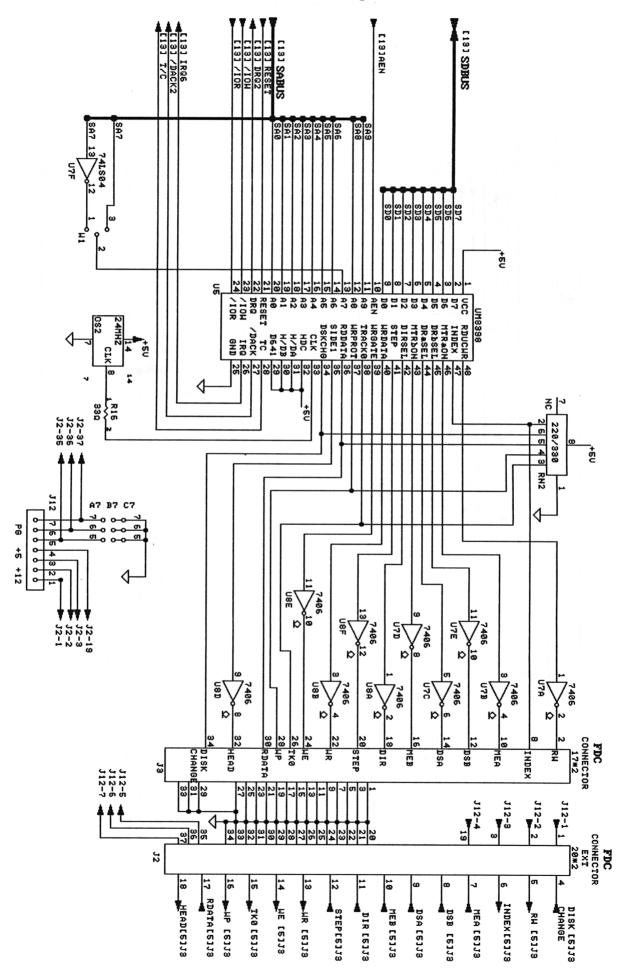


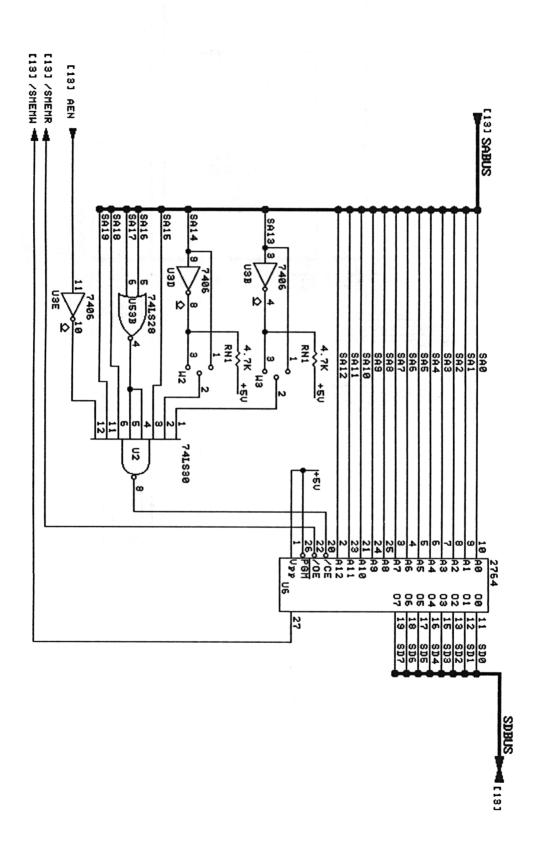
# Multi I/O Board



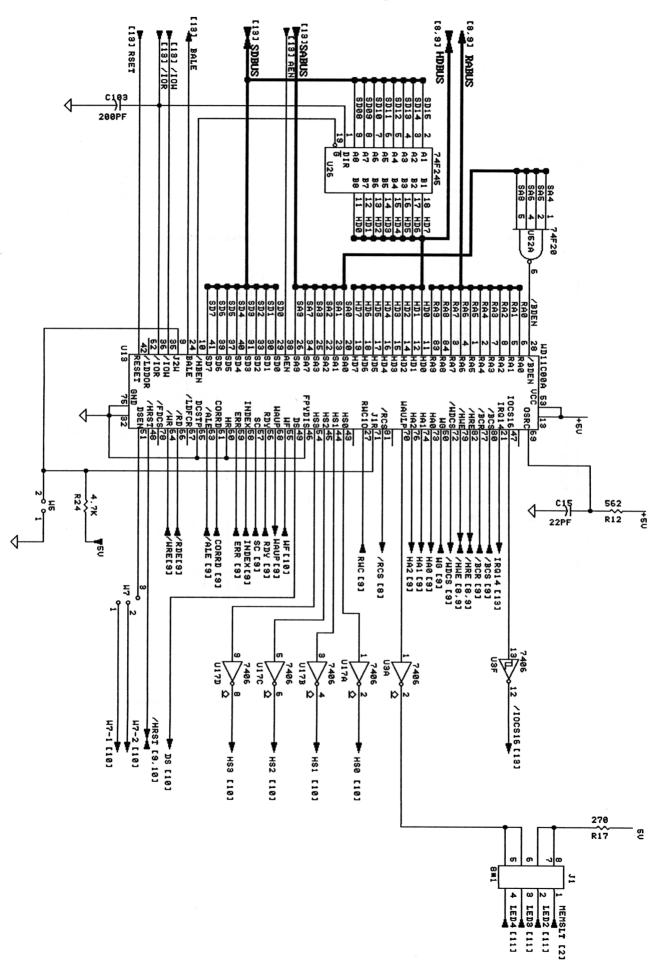


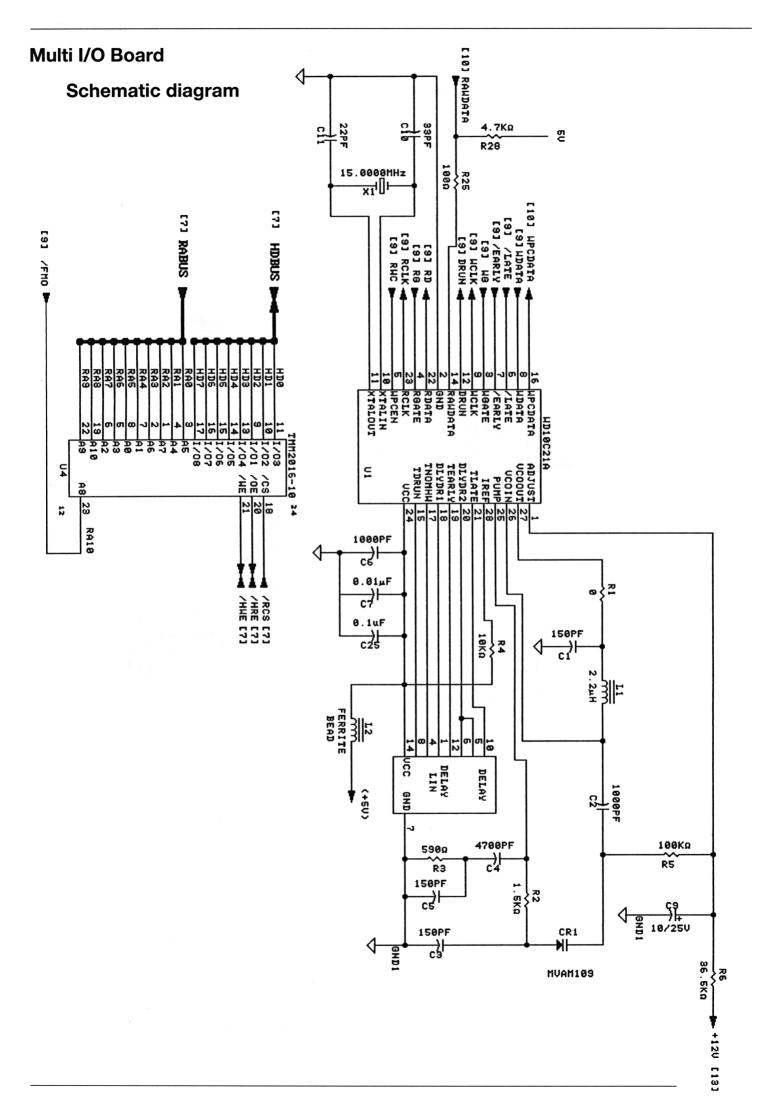
#### Multi I/O Board

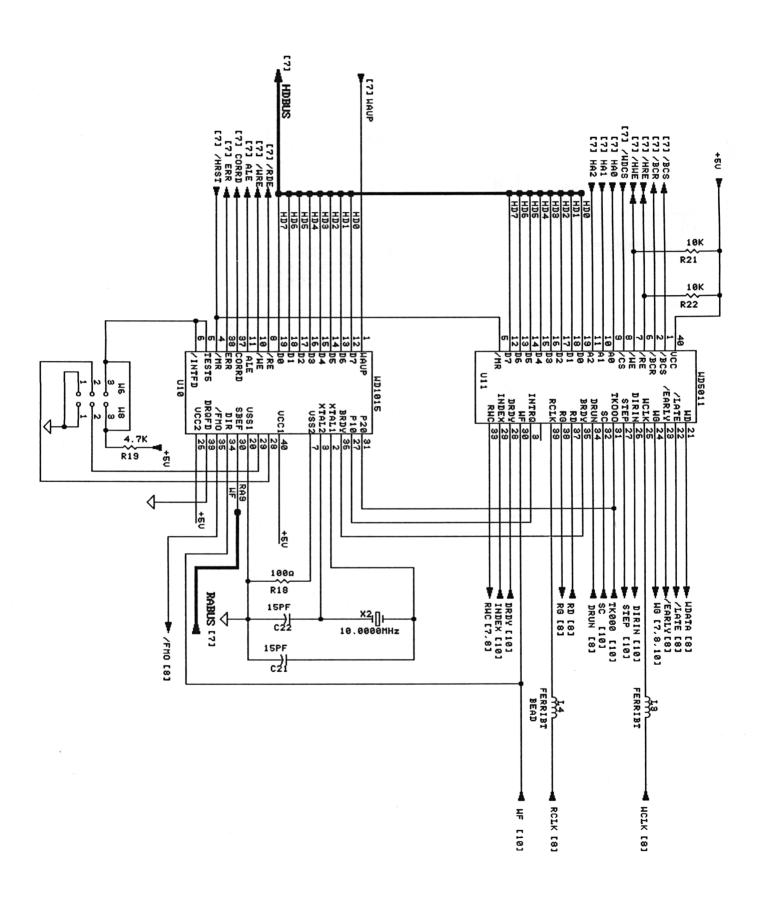




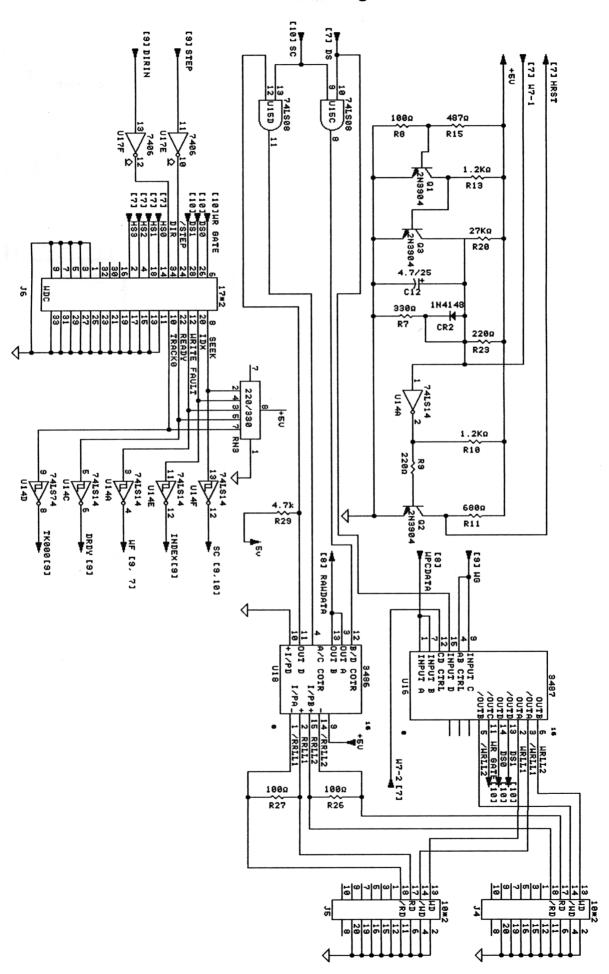
# Multi I/O Board



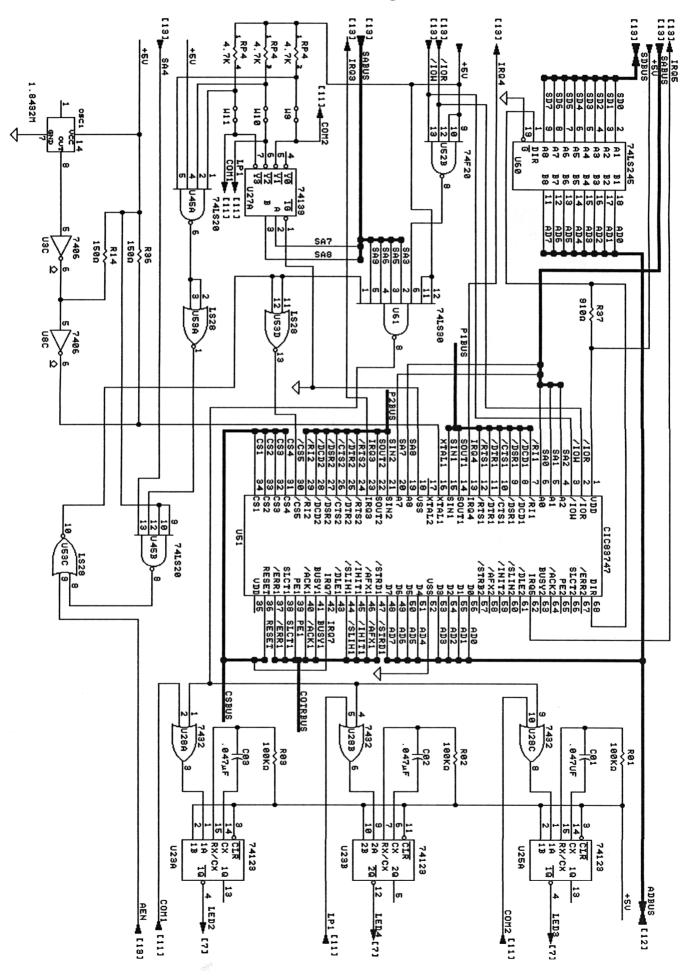


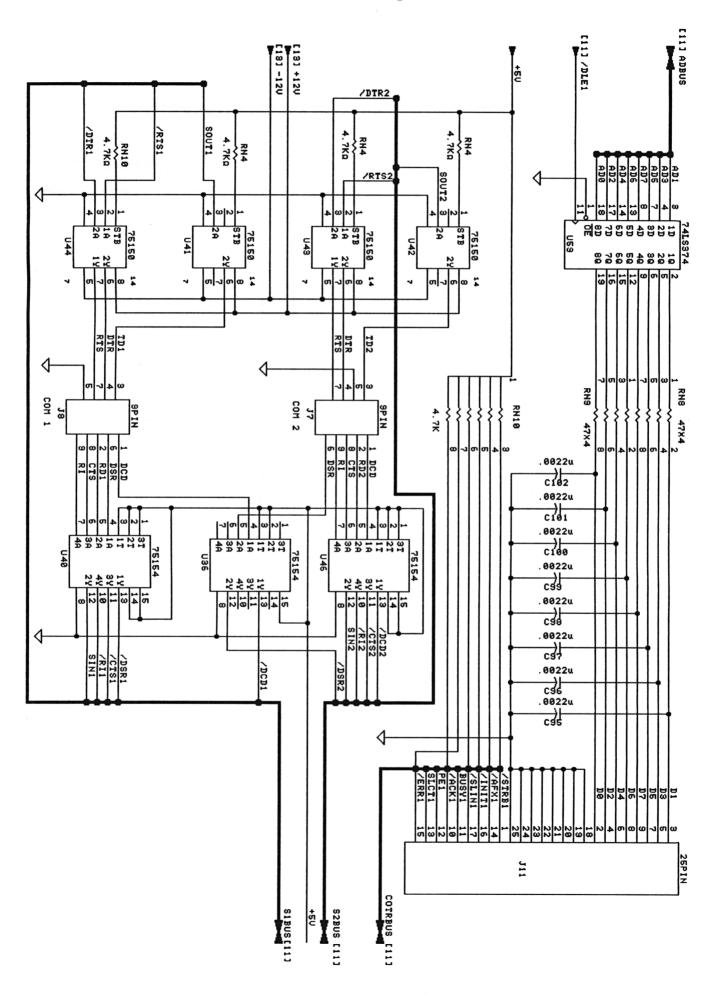


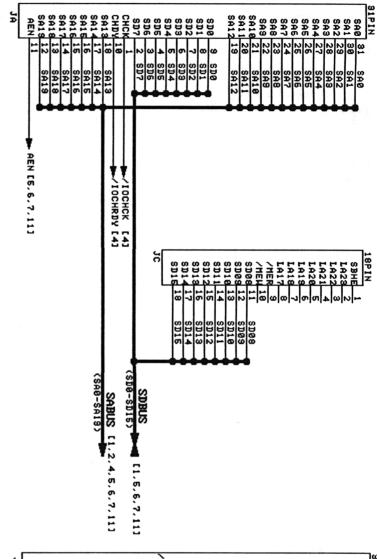
# Multi I/O Board

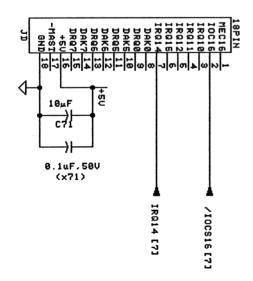


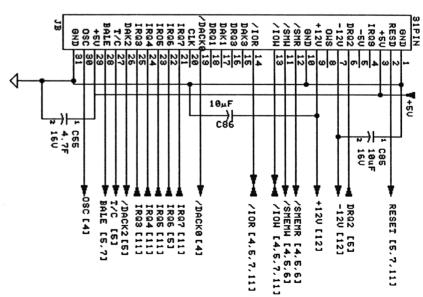
#### Multi I/O Board







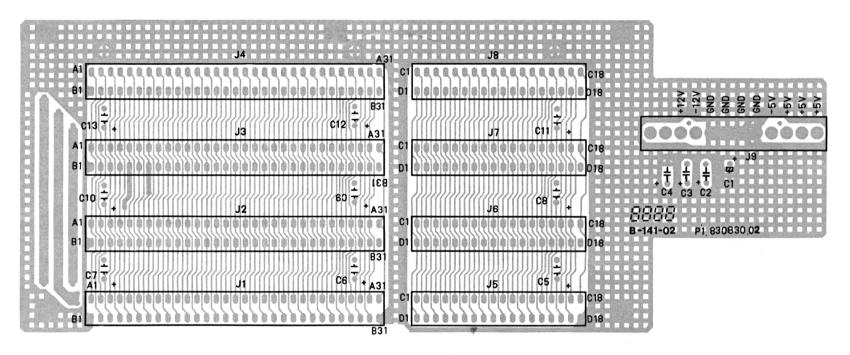




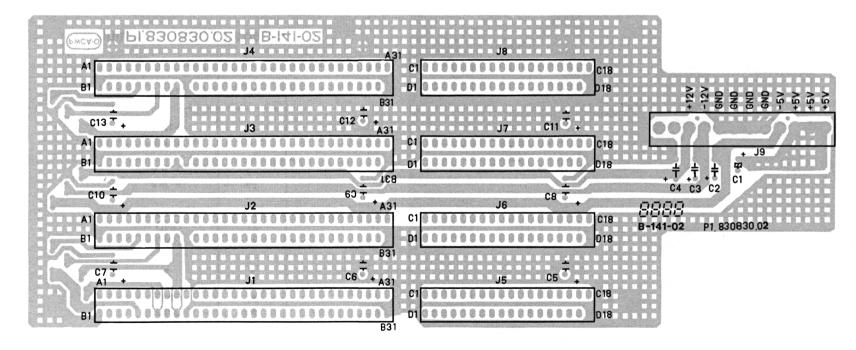
#### Ersatzteilliste für PC 2640 Parts List for PC 2640

BestNr. PartNo.	Bezeichnung	Description	Zeichen-Pos. RefNo.	Preisgruppe
Verschied	enes/Miscellaneous			
40 929 00 40 982 00 40 931 00 40 962 00	Platine Slot Netzteil HDD FDD 3½"	Slot board Power supply HDD FDD 31/2"	- - -	E 5 G 4 J 9 H 1

# **Component side**



# Soldering side



# **Jumper und DIP-Schalter Voreinstellung**

#### Multi I/O

W 1	2-3
W 2	2-3
W 3	2-3
W 4	1-2
W 5	NC
W 6	1-2
W 7	2-3
W 8	1-2
W 9	NC
W 10	NC
W 11	NC
W 12	1-2

#### SW 1

S 1	off
S 2	off
S 3	on
S 4	off
S 5	on
S 6	off

#### CPU

J 1	2-3
J 2	1-2
J 7	2-3
J 13	1-2
JP 1	1-2

#### SW 1 MM

S 1	on
S 2	off

#### SW 1 EM

S 1	on
S 2	on

# Externer Floppyanschluß

Pin	Signal	Pin	Signal
1 2 3 19 20 21 22 • • • 35 36 37	+12 V +12 V + 5 V + 5 V GND GND GND • • • GND GND GND GND	4 5 6 7 8 9 10 11 12 13 14 15 16 17	Disk Ch./Ready High Density Index Motor ON 0 Drive Select 1 Drive Select 0 Motor ON 1 Direction Step Write Data Write Gate Track 0 Write Protect Read Data Side 1 Select



Bitte bei Ersatzteilbestellung die genaue Bezeichnung und Ident-Nr. (siehe Typenschild) des Gerätes sowie Bestell-Nummer und Positions-Nummer des Ersatzteils angeben.

For ordering of spare parts please state exact description and ident.-no. of unit (see silver rating label on the backside of unit) as well as part no. and position no. of required spare parts.

Benutzen Sie:
Telex: 531516
oder
* 317298 #
oder



#### **Service-Information**

Nr. 884433

**Gerätetyp:** 

PC 2640

Ident.-Nr. 36523

**Betrifft:** 

Einsendungen im Servicefall

Bitte senden Sie im Servicefall die komplette

Systemeinheit oder den kompletten Platinensatz

(CPU, Multi I/0, SLOT) zu uns ein.

Gerätetyp:

Diverse

**Betrifft:** 

Vorausersatz

Senden Sie bitte die defekten Teile immer mit der beigelegten Originalrechnung, der Garantiekarte und Fehlerbeschreibung zur Kontoentlastung an

uns zurück.

Die Proformarechnung muß nicht bezahlt werden.